

KIITPOLYTECHNIC, BHUBANESWAR

LESSON PLAN

Session(2023-2024)

Discipline: Computer Science & Engineering	Semester: 6 th , Summer/2024	Name of the Teaching Faculty: Mr. Amalendu Kumar Pradhan, Lecturer E mail ID: amalendufcs@kp.kiit.ac.in
Subject: Cloud Computing Theory-03	No. Of Days/Week: 04	Start Date: 16/01/2024. End Date:

Week	Class Day	Theory Topics
1st	1st	Unit-1: Introduction to Cloud Computing Historical development
	2nd	Vision of Cloud Computing
	3rd	Characteristics of Cloud computing
	4th	Characteristics of Cloud computing
2nd	1st	Unit-2: Cloud Computing Architecture Introduction Cloud Reference Model
	2nd	Types of Clouds
	3rd	Cloud Interoperability and standards Cloud computing Interoperability use cases
	4th	Role of standards in Cloud Computing environment
3rd	1st	Unit-3: Scalability and Fault Tolerance Introduction Scalability and Fault Tolerance Cloud solutions Cloud Ecosystem
	2nd	Cloud Business process management Portability and Interoperability Cloud Service management
	3rd	Testing under Control Cloud Offerings
	4th	Cloud service Controls Virtual desktop Infrastructure

4th	1st	Unit-4: Cloud Management and Virtualization Technology Create a virtualized Architecture. Data Centre Resilience Agility
	2nd	Cisco Data Centre Network architecture
	3rd	Storage Provisioning Asset Management Concept of MapReduce Cloud Governance
	4th	Load Balancing High Availability Disaster Recovery
5th	1st	Unit-5: Virtualization Virtualization Virtualisation benefits
	2nd	Desktop and Application Virtualisation Network Virtualisation
	3rd	Local desktop Virtualisation Desktop as a service
	4th	QUIZ TEST
6th	1st	Server Virtualisation
	2nd	Block and File level Storage Virtualisation
	3rd	Virtual Machine Monitor
	4th	Infrastructure Requirements
7th	1st	VLAN and VSAN
	2nd	Unit-6: Cloud Security Cloud Security Fundamentals
	3rd	Cloud security services
	4th	Cloud security services
8th	1st	Design Principles
	2nd	Secure Cloud software requirements
	3rd	Policy Implementation
	4th	Cloud Computing Security Challenges
9th	1st	Unit-7: Cloud Computing Security Architecture
	2nd	Architectural Considerations
	3rd	Information Classification
	4th	Virtual Private Networks

10th	1st	PublicKeyandEncryptionKeymanagement
	2nd	Digitalcertificates
	3rd	Keymanagement
	4th	MemoryCards
11th	1st	ImplementingIdentityManagement
	2nd	ControlsandAutonomicSystem
	3rd	Unit-8:MarketBasedManagementofClouds
	4th	CloudInformationsecurityvendors
12th	1st	CloudFederation,characterization
	2nd	CloudFederationstack
	3rd	ThirdPartyCloudservice
	4th	Casestudy
13th	1st	Unit-9:Hadoop
	2nd	Introduction
	3rd	DataSource
	4th	DatastorageandAnalysis
14th	1st	Comparisonwithothersystem
	2nd	QuizTest
	3rd	Revision
	4th	Revision
15th	1st	DiscussionofQuestionAnswer
	2nd	DiscussionofQuestionAnswer
	3rd	DiscussionofQuestionAnswer
	4th	DiscussionofQuestionAnswer